



National Transportation Safety Board

## The Chairman's Corner

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Friday, January 11, 2008

### ***Crew Mistakes Caused Heeling of Crown Princess Cruise Ship***

In a January 10 meeting, the National Transportation Safety Board determined that the probable cause of an accident involving the cruise ship *Crown Princess* was the second officer's incorrect wheel commands, executed first to counter an unanticipated high rate of turn and then to counter the vessel's heeling.

Contributing to the cause of the accident were the captain's and staff captain's inappropriate inputs to the vessel's integrated navigation system while it was traveling at high speed in relatively shallow water, their failure to stabilize the vessel's heading fluctuations before leaving the bridge, and the inadequate training of crewmembers in the use of integrated navigation systems.

On July 18, 2006, the cruise ship *Crown Princess*, which had been in service about a month, departed Port Canaveral, Florida, for Brooklyn, New York, its last port on a 10-day round trip voyage to the Caribbean. About an hour after departing, the vessel's automatic navigation system caused the ship's heading to fluctuate around its intended course. Alarmed by a perceived high rate of turn, the second officer attempted to take corrective action that resulted in the ship heeling to a maximum angle of about 24 degrees to starboard. This caused people to be thrown about or struck by unsecured objects, resulting in 14 serious and 284 minor injuries to passengers and crewmembers. The vessel incurred no damage to its structure but sustained considerable damage to unsecured interior components, cabinets, and their contents.

The report adopted by the Board states that the *Crown Princess* was operating at nearly full speed when the second officer took the controls. Because of instabilities in the automatic steering system, the officer faced the problem of navigating a vessel that exhibited both increasing course deviations and high rates of turn. The second officer took manual control of the steering and steered back and forth between port and starboard in increasingly wider turns. Rather than remedying the problem, the second officer's actions aggravated the situation, resulting in a very large angle of heel. The captain quickly returned to the bridge and brought the vessel under control by centering the rudder and reducing speed. The Safety Board concluded that the incident occurred because the second officer initially turned the wheel to port, when he should have turned it to starboard to counteract the turn.

The Safety Board also stated that the captain and staff captain made errors with regard to the ship's integrated navigation system. These errors included:

- \* Failure to recognize that the integrated navigation system could be unpredictable at high speed in shallow water.
- \* Failure to recognize that the rudder economy and rudder limit settings on the integrated navigation system were inappropriate for the vessel's speed and operating conditions.

The Board concluded that these errors stemmed from inadequate training and lack of familiarity with the integrated navigation system.

As a result of its investigation, the Safety Board made recommendations regarding integrated navigation system training to the U.S. Coast Guard, the Cruise Lines International Association, and to SAM Electronics and Sperry Marine, manufacturers of integrated navigation systems.

### ***2007 Year in Review***

As we begin the new calendar year, I wanted to take this opportunity to again thank all of you for your hard work, dedication, and contributions toward making our Nation's transportation modes as safe as they can be.

Together this past year we have accomplished a great deal. We completed the second version of a 5-year Strategic Plan; all offices now have operating plans; the Board considered 26 major products in sunshine meetings; we have been able to reverse the funding trends from Congress and now can continue our hiring to build to a 424 FTE allocated staff level; we have had approximately 250 launches, (10 international and about 190 AS regional); we issued 172 Operations Bulletins; more than half of the Board Orders have been updated; the FOIA backlog has been reduced from 1,394 requests to 289 requests; the AS regional backlog has been reduced from 1,585 cases to 842 cases; we are completing the first NTSB Human Capital Plan; 66 Management Advisories have been issued since 2005; I have continued the Chairman's Corner, and to improve internal communications we have added the NTSB HUB, GC & CIO Newsletters.

I look forward to the challenges of 2008 with a recognition that the men and women of the NTSB are highly skilled, motivated, and as I have said many times "the best in the business."

-Mark V. Rosenker, Chairman

## Welcome New Employees

Jeff Leaman and Tim DePaepe - Office of Railroad, Pipeline and Hazardous Materials



Pictured Left to Right are Jeff Leaman and Tim DePaepe, new members of the RPH Staff, as they are sworn in by Railroad Division Chief, Jim Southworth in the Chicago office on Monday, January 7. They will both be working in RPH-10 out of Chicago and bring more than 60 years of railroad experience to the RPH-10 team.

Christopher Blumberg - Office of Administration



Christopher Blumberg joined the NTSB team on December 26, 2007 as the new Chief of the Acquisition Division.

Before coming to the NTSB, Chris was employed with the Architect of the Capitol as the Deputy Director of the Procurement Division where he oversaw numerous reforms to the Agency's procurement program. He began his federal career with the Department of Army, Communications-Electronics Command in Ft. Monmouth, NJ. He has served in various positions with the Army Materiel Command, including as an inspector for the Office of Inspector General and a business analyst for the Command Contracting office. In addition, he is a Senior Fellow with the Council for Excellence in Government.

Chris earned both an M.B.A and a B.S. in Business Administration from Monmouth University. Additionally, he earned an M.S. in Business Technologies from Marymount University.



Kenya Jefferson  
Office of Aviation Safety



Paul Stancil  
Office of Railroad, Pipeline, and Hazardous Materials

